

Instructor: Steve Scheiner, Chemistry Building 273
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T, Th 10:30 - 11:45 Maeser 151

Office Hours: T 1-2; Th 2-3, and other times by appointment

Text: "Quantum Chemistry", by I.N. Levine, Prentice-Hall Pub.

Content: The course will cover topics presented in the 17 chapters of the text, as well as supplementary information discussed in class. Students are encouraged to read the chapters and work the practice problems in the text.

Grading: Students will be evaluated primarily by assigned Problem Sets, approximately weekly.

Final Exam: A comprehensive take-home, covering material from the entire course.

Learning Objectives Students will learn to do the following:

Use quantum reasoning to explain microscopic model processes, including particle in a box, harmonic oscillator and atoms.

Formulate and use quantum mechanical operators.

Explain and use the variation theorem and perturbation theory.

Apply principles of electron spin to atoms and molecules.

Assessment Assessment of student learning will be performed via gain-score exams.

In accordance with the Americans with Disabilities Act, reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation in Chemistry 6010. A student who requires an accommodation must contact the Instructor. The disability must be documented by the Disability Resource Center. In cooperation with the Disability Resource Center, reasonable accommodation will be provided for students with Disabilities. Course material may be requested in alternate formats through the Disability Resource Center. The administration of Chemistry 6010 will adhere strictly to the academic regulations stipulated in the most recent USU General Catalog. The complete code of Policies and Procedures for Students can be viewed at:

<http://www.usu.edu/studentervices/studentcode/>